

## **Remarks**

### New Claims

Applicant has added new Claims 3-5 all depending from amended Claim 1. Claim 3 claims the disclosed embodiment in which no voids exist in the contact between facing plane 15 of brush unit 10 and outer planes 25 of brush holding portion 22. Support for new Claim 3 is found on page 4, line 8 of the specification.

New Claim 4 claims the embodiment of the invention in which protrusions extend from facing plane 15 and one or more depressions are defined by outer planes 25 of the holding portion. New Claim 5 claims the converse embodiment in which the protrusions extend from the outer planes and the depressions are defined by the facing planes. Support of new Claims 4 and 5 can be found in page 4, lines 17-18 of the instant application.

### Amendments to the Specification

The Examiner has objected to page 7 of the specification, lines 21-22 in which a grammatical error is noted. Applicant thanks the Examiner for pointing out this error. The paragraph in the specification starting on page 7, line 19 and ending on page 8, line 5 has been amended to correct this error. Applicant respectfully requests reconsideration.

The Examiner has objected to page 8, line 9 of the specification in which a misspelling of m the word "minor" is noted. Applicant thanks the Examiner for pointing out this error. The paragraph in the specification starting on page 8, lines 6-17 has been amended to correct this error. Applicant respectfully requests reconsideration.

The Examiner has objected to page 8, line 23 of the specification in which the sentence "Then use of the interdental brush set of the present invention is described" is objected to as being unclear. Applicant thanks the Examiner for pointing out this error. The paragraph in the specification from page 8, lines 26 through page 9, line 1 has been amended to correct this error. Applicant respectfully requests reconsideration.

The Examiner has objected to page 9, line 15 through page 10, line 18 in which the specification refers to numbered claims. Applicant thanks the Examiner for pointing out this error. The paragraphs in the specification from page 9, line 15 through page 10, line 18 has been amended to correct this error. Applicant respectfully requests reconsideration.

#### Amendments to the Drawings

The Examiner objected to Figs. 5-7 as not being designated as prior art. Applicant has submitted Replacement Figs. 1-7 wherein Figs. 5-7 have been amended to include such designation.

The Examiner objected to the Drawings as not illustrating the central angle of arch "W". Applicant has submitted Replacement Figs. 1-7 wherein Fig. 3a has been amended to illustrate the central angle "W".

Applicant respectfully submits that the amendments to the drawings add no new matter.

#### The § 103 (a) Rejection of Claim 1

The Examiner rejected Claim 1 as unpatentable under 35 U.S.C. §103 (a) over Japanese Patent Application No. JP 09-121942 ("the '942 application") in view of United States Patent No. 5,471,701 to Parafenie ("Parafenie" or "the Parafenie patent") or United States Patent No. 6,247,477 to Wagner ("Wagner" or "the Wagner patent"). Applicant has amended Claim 1 and respectfully traverses this rejection.

To establish a *prima facie* case of obviousness the combined references must teach or suggest all limitations of the claim at issue. The teaching or suggestion to make the combined combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. [See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)]. Applicant respectfully submits the combined references of the '942 application and either the Parafenie or Wagner patents fail to disclose all the elements of amended Claim 1. Specifically, as amended Claim 1 claims a holding portion that lacks both the orifice of the '942 application and the outer planes of the exterior of the holding portion. The interdental brush

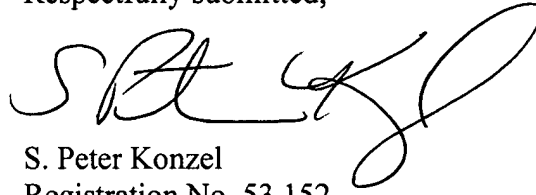
claimed in amended Claim 1 utilizes a joining system in which the facing planes of the brush part are contacted with the outer planes of the holding portion to form, along with the insertion groove friction a contact fit to hold the brush part and the brush holding portion together. Neither of the combined references discusses, suggest nor teach this type connecting system in interdental brushes in which a brush part is held to a brush holding portion using a contact friction fitting system. The '942 reference discloses only a connecting system in which the brush part is held to the holding portion by extending a hexagonal shaped axle through hexagonal holes on opposing sides of the holding portion. Applicant respectfully asserts that the '942 application does not disclose any other fastening method. Further, Parfenie shows only a connection using a spring that is pulled down by a pushbutton to release a brush portion held by spring tension against a detent as seen in Figure 2 of the Parfenie patent. Applicant courteously submits that at the time the invention was made, a person of ordinary skill in the art would not understand the friction contact connection of the interdental brush of Claim 1 by examining the combined '942 application and Parfenie patent as neither shows or discloses the friction connection components, let alone not disclosing Applicant's claimed connection system.

Similarly, the combination of the '942 patent and the Wagner patent also fails to teach or disclose the friction connection system of amended Claim 1. As noted above, the '942 application only teaches a connecting method in which a hexagonal nut is received into a hexagonal receiving hole in the holding portion of the handle of the '942 application. Applicant courteously notes that by orifice is meant an opening enclosed by material of the holding portion at 360° in substantially at least one plane. Wagner merely demonstrates the packing of different dental tips within a handle of a brush unit. Again, as above, neither reference demonstrates Applicant's connection method. Applicant courteously submits that at the time the invention was made, a person of ordinary skill in the art would not understand the friction contact connection of the interdental brush of Claim 1 by examining the combined '942 application and Wagner patent as neither shows or discloses the friction connection components, let alone not disclosing Applicant's claimed connection system. Applicant respectfully requests reconsideration and passage to allowance.

Conclusion

Applicant respectfully submits that the present application is now in condition for allowance, which action is courteously requested. The Examiner is invited and encouraged to contact the undersigned attorney of record if such contact will facilitate an efficient examination and allowance of the application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'S. Peter Konzel', with a large, stylized loop at the end.

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